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XML DATA ENCODING AND DECODING

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ABSTRACT

3 The present invention provides methods, systems and
4 apparatus to improve XML data encoding (compression)
5 decoding (decompression) efficiency. In an example
6 embodiment, a syntax type generator 2-1 converts a DTD
7 into an ASN.1 abstract syntax type, and a separation unit
8 2-2 separates text from XML data that conforms to the DTD.
9 Then, a syntax value generator 2-3 converts the XML data
10 (the syntax of an element) from which the text has been
11 separated into an ASN.1 abstract syntax value that
12 conforms to the ASN.1 abstract syntax type. Thereafter,
13 following the conversion by a transfer syntax generator
14 2-4 of the ASN.1 abstract syntax value into an ASN.1
15 transfer syntax, the separated text is compressed by a
16 compression unit 2-5 and encoded XML data is generated by
17 a combining unit 2-6 that combines the ASN.1 transfer
18 syntax and the compressed text.

19 [Selected Drawing] Fig. 1